5233

Department of Energy

Ohio Field Office
Fernald Environmental Management Project
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

JAN 16 2004

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0102-04

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

CHANGE PAGES FOR THE PROJECT SPECIFIC PLAN FOR INVESTIGATING SUBSURFACE MATERIAL FROM THE NORTHWESTERN PORTION OF WASTE PIT 3

References:
1. Letter, T. Schneider to W. Taylor, "Conditional Approval of PSP to Sample Waste Pit 3," dated January 7, 2004
2. Letter, J. Saric to J. Reising, "Waste Pit 3 Subsurface PSP," dated December 10, 2003

The purpose of this letter is to transmit "Change Pages" for the final Project Specific Plan (PSP) for Investigating Subsurface Material from the Northwestern Portion of Waste Pit 3 for your review and approval. The "Change Pages" were generated at the request of the Ohio Environmental Protection Agency (OEPA). The "Change Pages" provide a specific response to the OEPA review comments and incorporate revised text into the Final PSP.

Comments from the OEPA were provided in the Reference 1 letter and consisted of altering the sampling protocol if the Great Miami Aquifer sand and gravel are encountered prior to the 3.5-foot sample interval depth. Change pages (Pages 2-6 and Figure 2-2) have been updated to reflect the OEPA suggested protocol; and, Appendix D has been updated to reflect this protocol (Note 4), clarify Note 1 (add alpha surveying), and incorporate Note 5 (volatile analysis consistent with Figure 2-3) and Note 6 (field documentation information). The United States Environmental Protection Agency (USEPA) approved the PSP as noted in the Reference 2 letter.

If you have any questions or need further information, please contact Dave Lojek at (513) 648-3127.

Sincerely,

William J Taylor
Director

FCP:Lojek

Enclosure: As Stated

cc w/enclosure:
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SR-6J
F. Bell, ATSDR
M. Cullerton, Tetra Tech
D. Lojek, OH/FCP
M. Shupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, MS78

cc w/o enclosure:
K. Johnson, OH/FCP
J. Reising, OH/FCP
M. Cherry, Fluor Fernald, Inc./MS52-1
J. Chiou, Fluor Fernald, Inc./MS64
D. Dalga, Fluor Fernald, Inc./MS52-1
T. Hagen, Fluor Fernald, Inc./MS1
W. Hertel, Fluor Fernald, Inc./MS52-5
M. Kopp, Fluor Fernald, Inc./MS52-5
F. Miller, Fluor Fernald, Inc./MS64
T. Poff, Fluor Fernald, Inc./MS65-2
D. Powell, Fluor Fernald, Inc./MS64
C. Tabor, Fluor Fernald, Inc./MS90
ECDC, Fluor Fernald, Inc./MS52-7

ENCLOSURE A

CHANGE PAGES FOR THE
PROJECT-SPECIFIC PLAN FOR INVESTIGATING SUBSURFACE MATERIAL
FROM THE NORTHWESTERN PORTION OF WASTE PIT 3

REPLACE PAGES:

2-5 through 2-6
Figure 2-2
Appendix D – all pages

CHANGE PAGE CROSS REFERENCE LIST

Sections	Change Pages	Reason for Update
2	2-5 through 2-6	Correction on page 2-6
	Figure 2-2	Correction to Figure 2-2
Appendix D	Pages D-1 through D-6	

Note: Change pages are two-sided.

Sampling within each boring core will be conducted at 6 six-inch intervals as shown on Figure 2-2. The first six-inch interval of non-waste material (i.e., liner) will be included as part of the general pit excavation effort, with the material presumed to be contaminated and shipped offsite for disposal. Sampling for the targeted constituents will begin after the first six-inch interval of non-waste material is removed (except for the four asterisked locations) and will be conducted at six-inch intervals to a depth of 3.5 feet (refer to Section 2.3). The six sample intervals collected from each of the 10 locations are identified in Appendix D.

2.3 SAMPLE COLLECTION METHODS

Soil borings will be completed using the Geoprobe® core sampling assembly, in accordance with procedure EQT-06, Geoprobe® Model 5400 and Model 6600 Operation and Maintenance Manual. Soil samples will be collected in accordance with procedure SMPL-01, Solids Sampling. If refusal or resistance is encountered during sample collection, the boring location may be relocated up to three feet away. Any movement of the boring location by more than three feet will be documented on a variance/field change notice (V/FCN) form, as described in Section 3.4. Changes of less than three feet from the scheduled location will be documented (distance and direction) in the Field Activity Log associated with that boring. These activities will be coordinated with and authorized by the Characterization Lead and the WPP Excavation Manager.

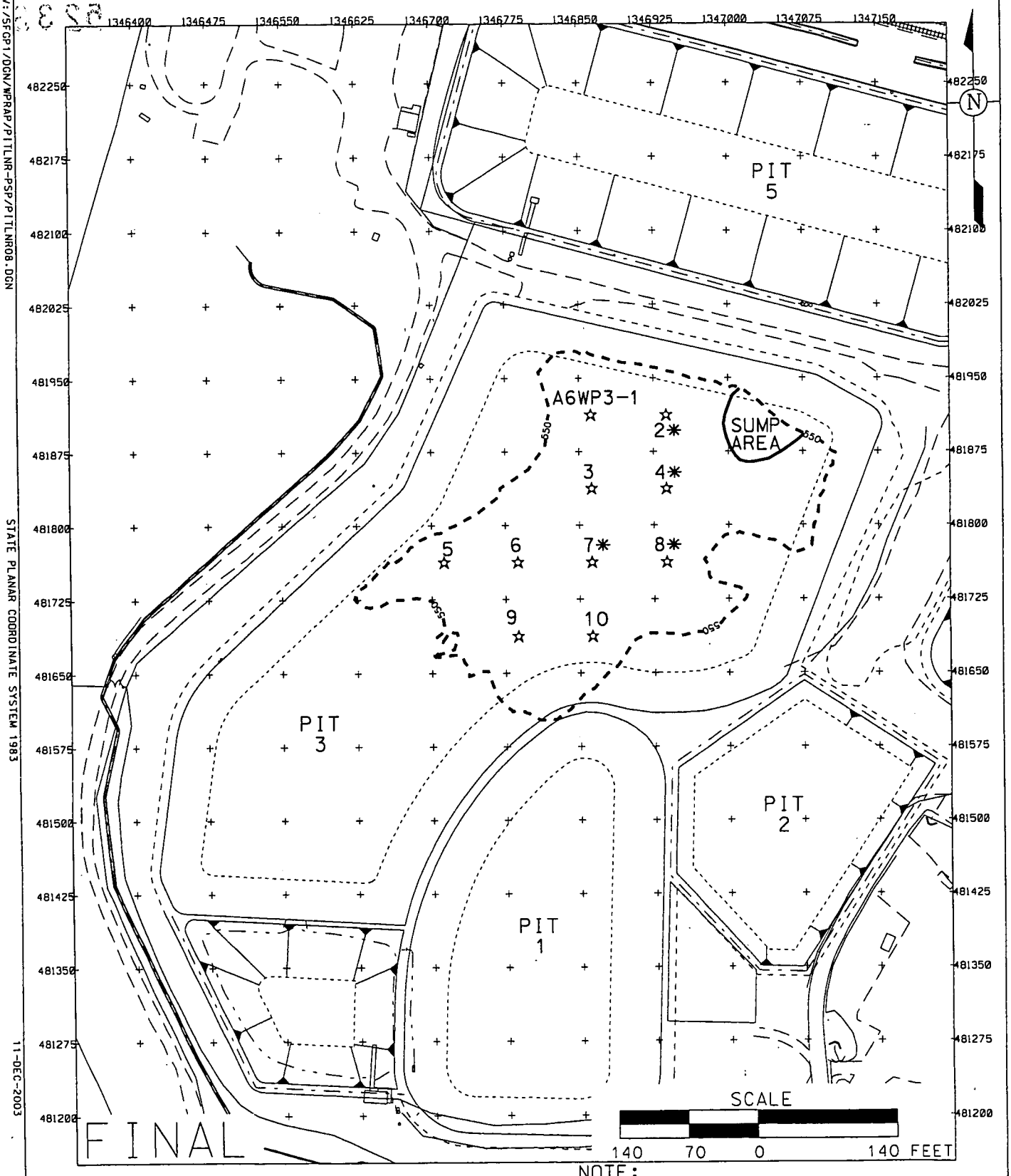
Prior to collection of the sample cores, any pit waste material overlying the pit floor within a 12-inch radius from the point to be sampled will be removed. The Geoprobe® will then be driven to the appropriate depth and, upon removal, each core will be laid out on clean plastic. The entire length of each boring will be PID screened for volatile organics. The Geoprobe core liners will be opened for the PID screening and the measurement for each six-inch interval will be recorded in the field documentation, along with the PID background reading. Additionally, the entire length of each soil core will be surveyed with a beta/gamma (Geiger-Mueller) survey meter. Following beta/gamma screening, the appropriate six-inch sample intervals, as designated for each of the 10 boring locations, will be collected. Note that a sample will be collected from the interval with the highest beta/gamma reading in each boring and submitted to the on-site laboratory for alpha/beta analysis results for off-site shipping purposes. If all intervals from a boring indicate no contamination above background, the alpha/beta sample will be collected from the first six-inch interval of non-waste material.

Lithological descriptions of the cores will be completed by the project geologist. The project geologist will attempt to identify the interface between the constructed clay pit liner material and the material below the constructed liner by evaluation of certain lithological characteristics. These characteristics will be recorded on a lithological log and will include, at minimum, material stratification; particle size; color; moisture content; density; and related geotechnical properties. Additionally, any debris (e.g., wood not part of undisturbed native till material, glass, metal) contained in the sample intervals will be removed and identified in a visual description of the sample core material.

Because of the propensity for contaminants to collect at interfaces of differing material, it has been determined that at conditions where there is a clear/major interface between material types (e.g., clay versus sand), the six-inch sample interval will be adjusted such that one six-inch interval will be collected immediately above the material interface and one six-inch interval will be collected immediately below the interface. The six-inch interval spacing will proceed in both directions (up and down the core) starting from the interface. If there is less than six inches remaining that can't provide the sufficient amount of soil volume at the uppermost interval of the boring, that interval will only be analyzed for total uranium and technetium-99. Any such interval adjustments must be noted in the Field Activity Log.

During this investigation, it is critical to prevent cross-contamination within the boreholes due to the proximity of the Great Miami Aquifer to the bottom of the waste pit liner. Therefore, a project geologist from Aquifer Restoration/Water Management group will monitor all boring activities associated with this investigation to ensure that every effort is taken to protect the Great Miami Aquifer. No borehole will be placed within ten feet of any liquid pooled on the waste pit floor. Weather forecasts will be monitored to prevent sampling during precipitation events. A containment barrier will be closely available to place around a borehole in process in the case of unexpected rain. Boreholes in the pit liner will be plugged (as specified in Section 2.8) immediately upon completion and any partially completed borehole shall not be left unplugged overnight or left unattended during the day of sampling.

Additionally, if the sand and gravel of the Great Miami Aquifer is encountered prior to the 3.5 foot depth in a borehole, then adjacent borehole depths will be altered to a depth six inches above the depth from which the sand and gravel was encountered (e.g., encounter sand and gravel at 2.0 feet, then adjacent borehole depths would be 1.5 feet). Changes will be documented in the Field Activity Log associated for borings of interest and activities will be coordinated with and authorized by the Characterization Lead and the WPP Excavation Manager. Note that monitoring of the Great Miami Aquifer will continue as part of the groundwater remedy performance monitoring specified in the IEMP and Geoprobe activities in the



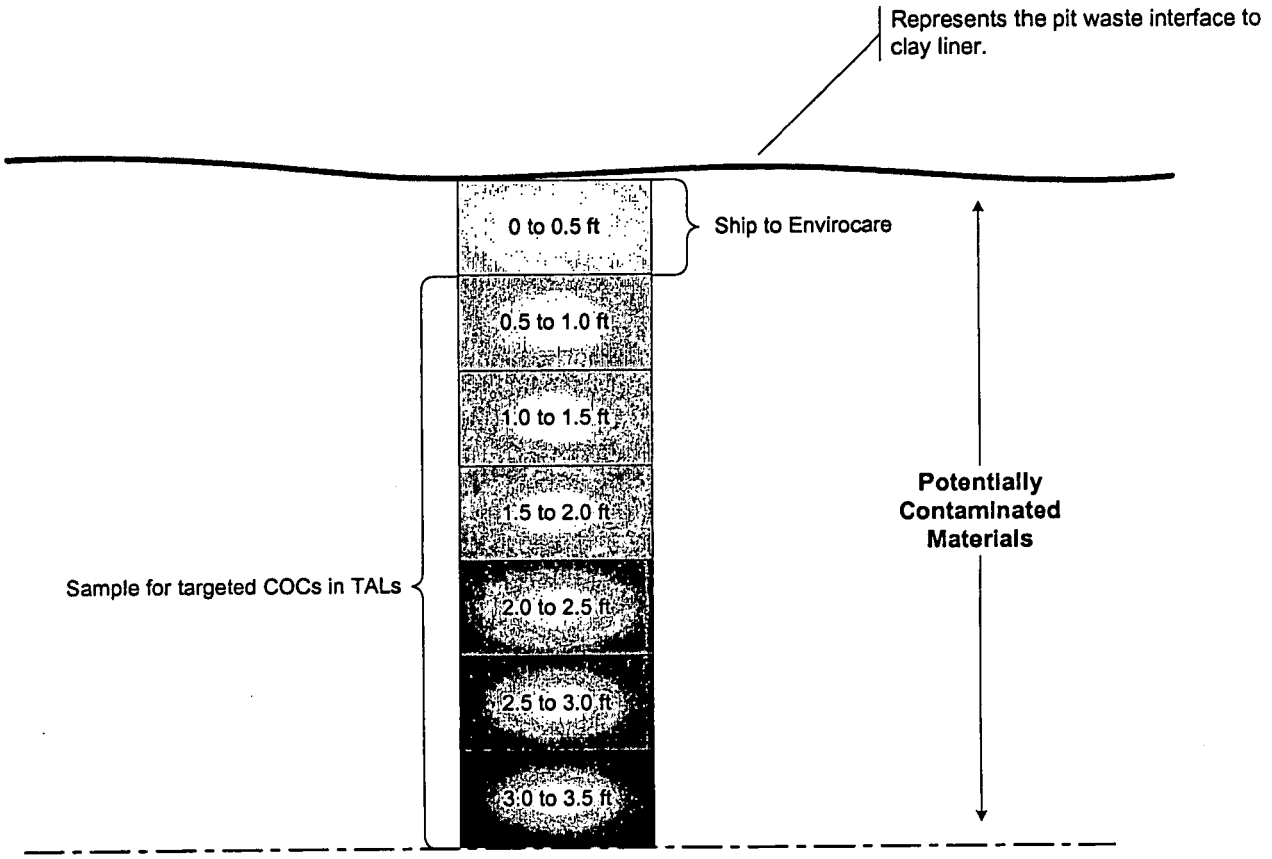
NOTE:
ALL BORING LOCATIONS WILL BE PRECEDED BY "A6WP3-"

LEGEND:

- JULY 2003 550' (amsl) LIDAR CONTOUR (i.e., EXCAVATED AREA)
- ☆ PROPOSED LINER/SUBSURFACE MATERIAL BORINGS
- * AT THESE PROPOSED LOCATIONS SIX INCHES OF LINER MATERIAL HAS BEEN EXCAVATED AND SHIPPED TO ENVIROCARE

FIGURE 2-1. PROPOSED SAMPLE LOCATIONS FOR THE NORTHWESTERN PORTION OF WASTE PIT 3

FIGURE 2-2. SAMPLE INTERVALS FOR WASTE PIT 3 SUBSURFACE INVESTIGATION



Note 1: Where there is a clear/major interface between material types (e.g., clay versus sand), the six-inch sample interval will be adjusted such that one six-inch interval will be collected immediately above the material interface and one six-inch interval will be collected immediately below the surface. The six-inch interval spacing will proceed in both directions (up and down the core) starting from the interface.

Note 2: For those • locations on Figure 2-1, the top interval (0 to 0.5 feet) has already been removed.

Note 3: If the sand and gravel of the Great Miami Aquifer is encountered prior to the 3.5 foot depth in the borehole, then adjacent borehole depths will be altered to a depth six inches above the depth from which the sand and gravel was encountered (e.g., encounter sand and gravel at 2.0 feet, then adjacent borehole depths would be 1.5 feet).

APPENDIX D

SAMPLE LOCATIONS AND IDENTIFIERS

TABLE D-1

WASTE PIT 3 SAMPLE LOCATION AND IDENTIFIERS

LOCATION	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
A6WP3-1	0' - 0.5'	No sample; will be shipped to Envirocare	NA	1346862.5	481912.5
	0.5' - 1.0'	A6WP3-1^2-RA	TAL A	1346862.5	481912.5
	0.5' - 1.0'	A6WP3-1^2-RB	TAL B	1346862.5	481912.5
	0.5' - 1.0'	A6WP3-1^2-MPS	TAL C,D,E	1346862.5	481912.5
	0.5' - 1.0'	A6WP3-1^2-L	TAL F	1346862.5	481912.5
	1.0' - 1.5'	A6WP3-1^3-RA	TAL A	1346862.5	481912.5
	1.0' - 1.5'	A6WP3-1^3-RB	TAL B	1346862.5	481912.5
	1.0' - 1.5'	A6WP3-1^3-MPS	TAL C,D,E	1346862.5	481912.5
	1.0' - 1.5'	A6WP3-1^3-L	TAL F	1346862.5	481912.5
	1.5' - 2.0'	A6WP3-1^4-RA	TAL A	1346862.5	481912.5
	1.5' - 2.0'	A6WP3-1^4-RB	TAL B	1346862.5	481912.5
	1.5' - 2.0'	A6WP3-1^4-MPS	TAL C,D,E	1346862.5	481912.5
	1.5' - 2.0'	A6WP3-1^4-L	TAL F	1346862.5	481912.5
	2.0' - 2.5'	A6WP3-1^5-RA	TAL A	1346862.5	481912.5
	2.0' - 2.5'	A6WP3-1^5-RB	TAL B	1346862.5	481912.5
	2.0' - 2.5'	A6WP3-1^5-MPS	TAL C,D,E	1346862.5	481912.5
	2.0' - 2.5'	A6WP3-1^5-L	TAL F	1346862.5	481912.5
	2.5' - 3.0	A6WP3-1^6-RA	TAL A	1346862.5	481912.5
	2.5' - 3.0	A6WP3-1^6-RB	TAL B	1346862.5	481912.5
	2.5' - 3.0	A6WP3-1^6-MPS	TAL C,D,E	1346862.5	481912.5
	2.5' - 3.0	A6WP3-1^6-L	TAL F	1346862.5	481912.5
	3.0' - 3.5'	A6WP3-1^7-RA	TAL A	1346862.5	481912.5
	3.0' - 3.5'	A6WP3-1^7-RB	TAL B	1346862.5	481912.5
	3.0' - 3.5'	A6WP3-1^7-MPS	TAL C,D,E	1346862.5	481912.5
	3.0' - 3.5'	A6WP3-1^7-L	TAL F	1346862.5	481912.5
LOCATION	**DEPTH**	**SAMPLE ID**	**ANALYSIS**	**EAST-83**	**NORTH-83**
A6WP3-2	0' - 0.5'	A6WP3-2^1-RA	TAL A	1346937.5	481912.5
	0' - 0.5'	A6WP3-2^1-RB	TAL B	1346937.5	481912.5
	0' - 0.5'	A6WP3-2^1-MPS	TAL C,D,E	1346937.5	481912.5
	0' - 0.5'	A6WP3-2^1-L	TAL F	1346937.5	481912.5
	0.5' - 1.0'	A6WP3-2^2-RA	TAL A	1346937.5	481912.5
	0.5' - 1.0'	A6WP3-2^2-RB	TAL B	1346937.5	481912.5
	0.5' - 1.0'	A6WP3-2^2-MPS	TAL C,D,E	1346937.5	481912.5
	0.5' - 1.0'	A6WP3-2^2-L	TAL F	1346937.5	481912.5
	1.0' - 1.5'	A6WP3-2^3-RA	TAL A	1346937.5	481912.5
	1.0' - 1.5'	A6WP3-2^3-RB	TAL B	1346937.5	481912.5
	1.0' - 1.5'	A6WP3-2^3-MPS	TAL C,D,E	1346937.5	481912.5
	1.0' - 1.5'	A6WP3-2^3-L	TAL F	1346937.5	481912.5
	1.5' - 2.0'	A6WP3-2^4-RA	TAL A	1346937.5	481912.5
	1.5' - 2.0'	A6WP3-2^4-RB	TAL B	1346937.5	481912.5
	1.5' - 2.0'	A6WP3-2^4-MPS	TAL C,D,E	1346937.5	481912.5
	1.5' - 2.0'	A6WP3-2^4-L	TAL F	1346937.5	481912.5
	2.0' - 2.5'	A6WP3-2^5-RA	TAL A	1346937.5	481912.5
	2.0' - 2.5'	A6WP3-2^5-RB	TAL B	1346937.5	481912.5
	2.0' - 2.5'	A6WP3-2^5-MPS	TAL C,D,E	1346937.5	481912.5
	2.0' - 2.5'	A6WP3-2^5-L	TAL F	1346937.5	481912.5
	2.5' - 3.0	A6WP3-2^6-RA	TAL A	1346937.5	481912.5
	2.5' - 3.0	A6WP3-2^6-RB	TAL B	1346937.5	481912.5
	2.5' - 3.0	A6WP3-2^6-MPS	TAL C,D,E	1346937.5	481912.5
	2.5' - 3.0	A6WP3-2^6-L	TAL F	1346937.5	481912.5

5233

TABLE D-1
(Continued)

LOCATION	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
A6WP3-3	0' - 0.5'	No sample; to be shipped to Envirocare	NA	1346862.5	481837.5
	0.5' - 1.0'	A6WP3-3^2-RA-	TAL A	1346862.5	481837.5
	0.5' - 1.0'	A6WP3-3^2-RB	TAL B	1346862.5	481837.5
	0.5' - 1.0'	A6WP3-3^2-MPS	TAL C,D,E	1346862.5	481837.5
	0.5' - 1.0'	A6WP3-3^2-L	TAL F	1346862.5	481837.5
	1.0' - 1.5'	A6WP3-3^3-RA	TAL A	1346862.5	481837.5
	1.0' - 1.5'	A6WP3-3^3-RB	TAL B	1346862.5	481837.5
	1.0' - 1.5'	A6WP3-3^3-MPS	TAL C,D,E	1346862.5	481837.5
	1.0' - 1.5'	A6WP3-3^3-L	TAL F	1346862.5	481837.5
	1.5' - 2.0'	A6WP3-3^4-RA	TAL A	1346862.5	481837.5
	1.5' - 2.0'	A6WP3-3^4-RB	TAL B	1346862.5	481837.5
	1.5' - 2.0'	A6WP3-3^4-MPS	TAL C,D,E	1346862.5	481837.5
	1.5' - 2.0'	A6WP3-3^4-L	TAL F	1346862.5	481837.5
	2.0' - 2.5'	A6WP3-3^5-RA	TAL A	1346862.5	481837.5
	2.0' - 2.5'	A6WP3-3^5-RB	TAL B	1346862.5	481837.5
	2.0' - 2.5'	A6WP3-3^5-MPS	TAL C,D,E	1346862.5	481837.5
	2.0' - 2.5'	A6WP3-3^5-L	TAL F	1346862.5	481837.5
	2.5' - 3.0	A6WP3-3^6-RA	TAL A	1346862.5	481837.5
	2.5' - 3.0	A6WP3-3^6-RB	TAL B	1346862.5	481837.5
	2.5' - 3.0	A6WP3-3^6-MPS	TAL C,D,E	1346862.5	481837.5
	2.5' - 3.0	A6WP3-3^6-L	TAL F	1346862.5	481837.5
	3.0' - 3.5'	A6WP3-3^7-RA	TAL A	1346862.5	481837.5
	3.0' - 3.5'	A6WP3-3^7-RB	TAL B	1346862.5	481837.5
	3.0' - 3.5'	A6WP3-3^7-MPS	TAL C,D,E	1346862.5	481837.5
	3.0' - 3.5'	A6WP3-3^7-L	TAL F	1346862.5	481837.5
LOCATION	**DEPTH**	**SAMPLE ID**	**ANALYSIS**	**EAST-83**	**NORTH-83**
A6WP3-4	0'- 0.5'	A6WP3-4^1-RA	TAL A	1346937.5	481837.5
	0'- 0.5'	A6WP3-4^1-RB	TAL B	1346937.5	481837.5
	0'- 0.5'	A6WP3-4^1-MPS	TAL C,D,E	1346937.5	481837.5
	0'- 0.5'	A6WP3-4^1-L	TAL F	1346937.5	481837.5
	0.5' - 1.0'	A6WP3-4^2-RA	TAL A	1346937.5	481837.5
	0.5' - 1.0'	A6WP3-4^2-RB	TAL B	1346937.5	481837.5
	0.5' - 1.0'	A6WP3-4^2-MPS	TAL C,D,E	1346937.5	481837.5
	0.5' - 1.0'	A6WP3-4^2-L	TAL F	1346937.5	481837.5
	1.0' - 1.5'	A6WP3-4^3-RA	TAL A	1346937.5	481837.5
	1.0' - 1.5'	A6WP3-4^3-RB	TAL B	1346937.5	481837.5
	1.0' - 1.5'	A6WP3-4^3-MPS	TAL C,D,E	1346937.5	481837.5
	1.0' - 1.5'	A6WP3-4^3-L	TAL F	1346937.5	481837.5
	1.5' - 2.0'	A6WP3-4^4-RA	TAL A	1346937.5	481837.5
	1.5' - 2.0'	A6WP3-4^4-RB	TAL B	1346937.5	481837.5
	1.5' - 2.0'	A6WP3-4^4-MPS	TAL C,D,E	1346937.5	481837.5
	1.5' - 2.0'	A6WP3-4^4-L	TAL F	1346937.5	481837.5
	2.0' - 2.5'	A6WP3-4^5-RA	TAL A	1346937.5	481837.5
	2.0' - 2.5'	A6WP3-4^5-RB	TAL B	1346937.5	481837.5
	2.0' - 2.5'	A6WP3-4^5-MPS	TAL C,D,E	1346937.5	481837.5
	2.0' - 2.5'	A6WP3-4^5-L	TAL F	1346937.5	481837.5
	2.5' - 3.0	A6WP3-4^6-RA	TAL A	1346937.5	481837.5
	2.5' - 3.0	A6WP3-4^6-RB	TAL B	1346937.5	481837.5
	2.5' - 3.0	A6WP3-4^6-MPS	TAL C,D,E	1346937.5	481837.5
	2.5' - 3.0	A6WP3-4^6-L	TAL F	1346937.5	481837.5

5233

TABLE D-1
(Continued)

LOCATION	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
A6WP3-5	0' - 0.5'	No sample; to be shipped to Envirocare	NA	1346712.5	481762.5
	0.5' - 1.0'	A6WP3-5^2-RA	TAL A	1346712.5	481762.5
	0.5' - 1.0'	A6WP3-5^2-RB	TAL B	1346712.5	481762.5
	0.5' - 1.0'	A6WP3-5^2-MPS	TAL C,D,E	1346712.5	481762.5
	0.5' - 1.0'	A6WP3-5^2-L	TAL F	1346712.5	481762.5
	1.0' - 1.5'	A6WP3-5^3-RA	TAL A	1346712.5	481762.5
	1.0' - 1.5'	A6WP3-5^3-RB	TAL B	1346712.5	481762.5
	1.0' - 1.5'	A6WP3-5^3-MPS	TAL C,D,E	1346712.5	481762.5
	1.0' - 1.5'	A6WP3-5^3-L	TAL F	1346712.5	481762.5
	1.5' - 2.0'	A6WP3-5^4-RA	TAL A	1346712.5	481762.5
	1.5' - 2.0'	A6WP3-5^4-RB	TAL B	1346712.5	481762.5
	1.5' - 2.0'	A6WP3-5^4-MPS	TAL C,D,E	1346712.5	481762.5
	1.5' - 2.0'	A6WP3-5^4-L	TAL F	1346712.5	481762.5
	2.0' - 2.5'	A6WP3-5^5-RA	TAL A	1346712.5	481762.5
	2.0' - 2.5'	A6WP3-5^5-RB	TAL B	1346712.5	481762.5
	2.0' - 2.5'	A6WP3-5^5-MPS	TAL C,D,E	1346712.5	481762.5
	2.0' - 2.5'	A6WP3-5^5-L	TAL F	1346712.5	481762.5
	2.5' - 3.0	A6WP3-5^6-RA	TAL A	1346712.5	481762.5
	2.5' - 3.0	A6WP3-5^6-RB	TAL B	1346712.5	481762.5
	2.5' - 3.0	A6WP3-5^6-MPS	TAL C,D,E	1346712.5	481762.5
	2.5' - 3.0	A6WP3-5^6-L	TAL F	1346712.5	481762.5
	3.0' - 3.5'	A6WP3-5^7-RA	TAL A	1346712.5	481762.5
	3.0' - 3.5'	A6WP3-5^7-RB	TAL B	1346712.5	481762.5
	3.0' - 3.5'	A6WP3-5^7-MPS	TAL C,D,E	1346712.5	481762.5
	3.0' - 3.5'	A6WP3-5^7-L	TAL F	1346712.5	481762.5
LOCATION	**DEPTH**	**SAMPLE ID**	**ANALYSIS**	**EAST-83**	**NORTH-83**
A6WP3-6	0' - 0.5'	No sample; to be shipped to Envirocare		1346787.5	481762.5
	0.5' - 1.0'	A6WP3-6^2-RA	TAL A	1346787.5	481762.5
	0.5' - 1.0'	A6WP3-6^2-RB	TAL B	1346787.5	481762.5
	0.5' - 1.0'	A6WP3-6^2-MPS	TAL C,D,E	1346787.5	481762.5
	0.5' - 1.0'	A6WP3-6^2-L	TAL F	1346787.5	481762.5
	1.0' - 1.5'	A6WP3-6^3-RA	TAL A	1346787.5	481762.5
	1.0' - 1.5'	A6WP3-6^3-RB	TAL B	1346787.5	481762.5
	1.0' - 1.5'	A6WP3-6^3-MPS	TAL C,D,E	1346787.5	481762.5
	1.0' - 1.5'	A6WP3-6^3-L	TAL F	1346787.5	481762.5
	1.5' - 2.0'	A6WP3-6^4-RA	TAL A	1346787.5	481762.5
	1.5' - 2.0'	A6WP3-6^4-RB	TAL B	1346787.5	481762.5
	1.5' - 2.0'	A6WP3-6^4-MPS	TAL C,D,E	1346787.5	481762.5
	1.5' - 2.0'	A6WP3-6^4-L	TAL F	1346787.5	481762.5
	2.0' - 2.5'	A6WP3-6^5-RA	TAL A	1346787.5	481762.5
	2.0' - 2.5'	A6WP3-6^5-RB	TAL B	1346787.5	481762.5
	2.0' - 2.5'	A6WP3-6^5-MPS	TAL C,D,E	1346787.5	481762.5
	2.0' - 2.5'	A6WP3-6^5-L	TAL F	1346787.5	481762.5
	2.5' - 3.0	A6WP3-6^6-RA	TAL A	1346787.5	481762.5
	2.5' - 3.0	A6WP3-6^6-RB	TAL B	1346787.5	481762.5
	2.5' - 3.0	A6WP3-6^6-MPS	TAL C,D,E	1346787.5	481762.5
	2.5' - 3.0	A6WP3-6^6-L	TAL F	1346787.5	481762.5
	3.0' - 3.5'	A6WP3-6^7-RA	TAL A	1346787.5	481762.5
	3.0' - 3.5'	A6WP3-6^7-RB	TAL B	1346787.5	481762.5
	3.0' - 3.5'	A6WP3-6^7-MPS	TAL C,D,E	1346787.5	481762.5
	3.0' - 3.5'	A6WP3-6^7-L	TAL F	1346787.5	481762.5

12

6654

TABLE D-1
(Continued)

5233

LOCATION	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
A6WP3-7	0' - 0.5'	A6WP3-7^1-RA	TAL A	1346862.5	481762.5
	0' - 0.5'	A6WP3-7^1-RB	TAL B	1346862.5	481762.5
	0' - 0.5'	A6WP3-7^1-MPS	TAL C,D,E	1346862.5	481762.5
	0' - 0.5'	A6WP3-7^1-L	TAL F	1346862.5	481762.5
	0.5' - 1.0'	A6WP3-7^2-RA	TAL A	1346862.5	481762.5
	0.5' - 1.0'	A6WP3-7^2-RB	TAL B	1346862.5	481762.5
	0.5' - 1.0'	A6WP3-7^2-MPS	TAL C,D,E	1346862.5	481762.5
	0.5' - 1.0'	A6WP3-7^2-L	TAL F	1346862.5	481762.5
	1.0' - 1.5'	A6WP3-7^3-RA	TAL A	1346862.5	481762.5
	1.0' - 1.5'	A6WP3-7^3-RB	TAL B	1346862.5	481762.5
	1.0' - 1.5'	A6WP3-7^3-MPS	TAL C,D,E	1346862.5	481762.5
	1.0' - 1.5'	A6WP3-7^3-L	TAL F	1346862.5	481762.5
	1.5' - 2.0'	A6WP3-7^4-RA	TAL A	1346862.5	481762.5
	1.5' - 2.0'	A6WP3-7^4-RB	TAL B	1346862.5	481762.5
	1.5' - 2.0'	A6WP3-7^4-MPS	TAL C,D,E	1346862.5	481762.5
	1.5' - 2.0'	A6WP3-7^4-L	TAL F	1346862.5	481762.5
	2.0' - 2.5'	A6WP3-7^5-RA	TAL A	1346862.5	481762.5
	2.0' - 2.5'	A6WP3-7^5-RB	TAL B	1346862.5	481762.5
	2.0' - 2.5'	A6WP3-7^5-MPS	TAL C,D,E	1346862.5	481762.5
	2.0' - 2.5'	A6WP3-7^5-L	TAL F	1346862.5	481762.5
	2.5' - 3.0	A6WP3-7^6-RA	TAL A	1346862.5	481762.5
	2.5' - 3.0	A6WP3-7^6-RB	TAL B	1346862.5	481762.5
	2.5' - 3.0	A6WP3-7^6-MPS	TAL C,D,E	1346862.5	481762.5
	2.5' - 3.0	A6WP3-7^6-L	TAL F	1346862.5	481762.5
	3.0' - 3.5'	A6WP3-7^7-RA	TAL A	1346862.5	481762.5
	3.0' - 3.5'	A6WP3-7^7-RB	TAL B	1346862.5	481762.5
	3.0' - 3.5'	A6WP3-7^7-MPS	TAL C,D,E	1346862.5	481762.5
	3.0' - 3.5'	A6WP3-7^7-L	TAL F	1346862.5	481762.5
LOCATION	**DEPTH**	**SAMPLE ID**	**ANALYSIS**	**EAST-83**	**NORTH-83**
A6WP3-8	0' - 0.5'	A6WP3-8^1-RA	TAL A	1346937.5	481762.5
	0' - 0.5'	A6WP3-8^1-RB	TAL B	1346937.5	481762.5
	0' - 0.5'	A6WP3-8^1-MPS	TAL C,D,E	1346937.5	481762.5
	0' - 0.5'	A6WP3-8^1-L	TAL F	1346937.5	481762.5
	0.5' - 1.0'	A6WP3-8^2-RA	TAL A	1346937.5	481762.5
	0.5' - 1.0'	A6WP3-8^2-RB	TAL B	1346937.5	481762.5
	0.5' - 1.0'	A6WP3-8^2-MPS	TAL C,D,E	1346937.5	481762.5
	0.5' - 1.0'	A6WP3-8^2-L	TAL F	1346937.5	481762.5
	1.0' - 1.5'	A6WP3-8^3-RA	TAL A	1346937.5	481762.5
	1.0' - 1.5'	A6WP3-8^3-RB	TAL B	1346937.5	481762.5
	1.0' - 1.5'	A6WP3-8^3-MPS	TAL C,D,E	1346937.5	481762.5
	1.0' - 1.5'	A6WP3-8^3-L	TAL F	1346937.5	481762.5
	1.5' - 2.0'	A6WP3-8^4-RA	TAL A	1346937.5	481762.5
	1.5' - 2.0'	A6WP3-8^4-RB	TAL B	1346937.5	481762.5
	1.5' - 2.0'	A6WP3-8^4-MPS	TAL C,D,E	1346937.5	481762.5
	1.5' - 2.0'	A6WP3-8^4-L	TAL F	1346937.5	481762.5
	2.0' - 2.5'	A6WP3-8^5-RA	TAL A	1346937.5	481762.5
	2.0' - 2.5'	A6WP3-8^5-RB	TAL B	1346937.5	481762.5
	2.0' - 2.5'	A6WP3-8^5-MPS	TAL C,D,E	1346937.5	481762.5
	2.0' - 2.5'	A6WP3-8^5-L	TAL F	1346937.5	481762.5
	2.5' - 3.0	A6WP3-8^6-RA	TAL A	1346937.5	481762.5
	2.5' - 3.0	A6WP3-8^6-RB	TAL B	1346937.5	481762.5
	2.5' - 3.0	A6WP3-8^6-MPS	TAL C,D,E	1346937.5	481762.5
	2.5' - 3.0	A6WP3-8^6-L	TAL F	1346937.5	481762.5

TABLE D-1
(Continued)

-5233

LOCATION	DEPTH	SAMPLE ID	ANALYSIS	EAST-83	NORTH-83
A6WP3-9	0' - 0.5'	No sample; to be shipped to Envirocare	NA	1346787.5	481687.5
	0.5' - 1.0'	A6WP3-9^2-RA	TAL A	1346787.5	481687.5
	0.5' - 1.0'	A6WP3-9^2-RB	TAL B	1346787.5	481687.5
	0.5' - 1.0'	A6WP3-9^2-MPS	TAL C,D,E	1346787.5	481687.5
	0.5' - 1.0'	A6WP3-9^2-L	TAL F	1346787.5	481687.5
	1.0' - 1.5'	A6WP3-9^3-RA	TAL A	1346787.5	481687.5
	1.0' - 1.5'	A6WP3-9^3-RB	TAL B	1346787.5	481687.5
	1.0' - 1.5'	A6WP3-9^3-MPS	TAL C,D,E	1346787.5	481687.5
	1.0' - 1.5'	A6WP3-9^3-L	TAL F	1346787.5	481687.5
	1.5' - 2.0'	A6WP3-9^4-RA	TAL A	1346787.5	481687.5
	1.5' - 2.0'	A6WP3-9^4-RB	TAL B	1346787.5	481687.5
	1.5' - 2.0'	A6WP3-9^4-MPS	TAL C,D,E	1346787.5	481687.5
	1.5' - 2.0'	A6WP3-9^4-L	TAL F	1346787.5	481687.5
	2.0' - 2.5'	A6WP3-9^5-RA	TAL A	1346787.5	481687.5
	2.0' - 2.5'	A6WP3-9^5-RB	TAL B	1346787.5	481687.5
	2.0' - 2.5'	A6WP3-9^5-MPS	TAL C,D,E	1346787.5	481687.5
	2.0' - 2.5'	A6WP3-9^5-L	TAL F	1346787.5	481687.5
	2.5' - 3.0	A6WP3-9^6-RA	TAL A	1346787.5	481687.5
	2.5' - 3.0	A6WP3-9^6-RB	TAL B	1346787.5	481687.5
	2.5' - 3.0	A6WP3-9^6-MPS	TAL C,D,E	1346787.5	481687.5
	2.5' - 3.0	A6WP3-9^6-L	TAL F	1346787.5	481687.5
	3.0' - 3.5'	A6WP3-9^7-RA	TAL A	1346787.5	481687.5
	3.0' - 3.5'	A6WP3-9^7-RB	TAL B	1346787.5	481687.5
	3.0' - 3.5'	A6WP3-9^7-MPS	TAL C,D,E	1346787.5	481687.5
	3.0' - 3.5'	A6WP3-9^7-L	TAL F	1346787.5	481687.5
LOCATION	**DEPTH**	**SAMPLE ID**	**ANALYSIS**	**EAST-83**	**NORTH-83**
A6WP3-10	0' – 0.5'	No sample; to be shipped to Envirocare	NA	1346862.5	481687.5
	0.5' - 1.0'	A6WP3-10^2-RA	TAL A	1346862.5	481687.5
	0.5' - 1.0'	A6WP3-10^2-RB	TAL B	1346862.5	481687.5
	0.5' - 1.0'	A6WP3-10^2-MPS	TAL C,D,E	1346862.5	481687.5
	0.5' - 1.0'	A6WP3-10^2-L	TAL F	1346862.5	481687.5
	1.0' - 1.5'	A6WP3-10^3-RA	TAL A	1346862.5	481687.5
	1.0' - 1.5'	A6WP3-10^3-RB	TAL B	1346862.5	481687.5
	1.0' - 1.5'	A6WP3-10^3-MPS	TAL C,D,E	1346862.5	481687.5
	1.0' - 1.5'	A6WP3-10^3-L	TAL F	1346862.5	481687.5
	1.5' - 2.0'	A6WP3-10^4-RA	TAL A	1346862.5	481687.5
	1.5' - 2.0'	A6WP3-10^4-RB	TAL B	1346862.5	481687.5
	1.5' - 2.0'	A6WP3-10^4-MPS	TAL C,D,E	1346862.5	481687.5
	1.5' - 2.0'	A6WP3-10^4-L	TAL F	1346862.5	481687.5
	2.0' - 2.5'	A6WP3-10^5-RA	TAL A	1346862.5	481687.5
	2.0' - 2.5'	A6WP3-10^5-RB	TAL B	1346862.5	481687.5
	2.0' - 2.5'	A6WP3-10^5-MPS	TAL C,D,E	1346862.5	481687.5
	2.0' - 2.5'	A6WP3-10^5-L	TAL F	1346862.5	481687.5
	2.5' - 3.0	A6WP3-10^6-RA	TAL A	1346862.5	481687.5
	2.5' - 3.0	A6WP3-10^6-RB	TAL B	1346862.5	481687.5
	2.5' - 3.0	A6WP3-10^6-MPS	TAL C,D,E	1346862.5	481687.5
	2.5' - 3.0	A6WP3-10^6-L	TAL F	1346862.5	481687.5
	3.0' - 3.5'	A6WP3-10^7-RA	TAL A	1346862.5	481687.5
	3.0' - 3.5'	A6WP3-10^7-RB	TAL B	1346862.5	481687.5
	3.0' - 3.5'	A6WP3-10^7-MPS	TAL C,D,E	1346862.5	481687.5
	3.0' - 3.5'	A6WP3-10^7-L	TAL F	1346862.5	481687.5

TABLE D-1
(Continued)

5233

NA Not Applicable

Note 1: The entire length of each soil core will be surveyed with beta/gamma (Geiger-Mueller) and alpha survey meters. Both radiological activity measurements for each six-inch interval will be recorded in the field documentation. Following radiological screening, the six-inch interval with the highest total alpha reading above background and the six-inch interval with the highest beta/ gamma reading above background from each boring core will be collected for gross alpha/beta analysis at the onsite laboratory for use in shipping documentation. If only one of the scans (i.e., alpha or beta/gamma field scan) measures above background, then the sample above background will be submitted. If neither of the field scans measure above background, the total uranium result from the uppermost interval will be used for off-site shipping purposes. Sample identification for these samples will be: A6WP3-(Boring Number)^(Boring depth interval)-(A) or (B/G). Thus, if the highest field alpha scan results (above background) at Boring 6 is collected from interval 3, the sample identification would be A6WP3-6^3-A. If in the same boring, interval 1 had the highest beta/gamma reading above background, its sample identification would be A6WP3-6^1-BG.

Note 2: The entire length of each boring will be PID screened for volatile organics. The Geoprobe core liners will be opened for the PID screening and the measurement for each six-inch interval will be recorded in the field documentation, along with the PID background reading.

Note 3: Because of the propensity for contaminants to collect at interfaces of differing material, it has been determined that at conditions where there is a clear/major interface between material types (e.g., clay versus sand), the six-inch sample interval will be adjusted such that one six-inch interval will be collected immediately above the material interface and one six-inch interval will be collected immediately below the interface. The six-inch interval spacing will proceed in both directions (up and down the core) starting from the interface. If there is less than six inches remaining that can't provide the sufficient amount of soil volume at the uppermost interval of the boring, that interval will only be analyzed for total uranium and technetium-99. Any such interval adjustments must be noted in the *Field Activity Log*.

Note 4: If the sand and gravel of the Great Miami Aquifer is encountered prior to the 3.5 foot depth in the borehole, then adjacent borehole depths will be altered to a depth six inches above the depth from which the sand and gravel was encountered (e.g., encounter sand and gravel at 2.0 feet, then adjacent borehole depths would be 1.5 feet).

Note 5: Samples for TAL F (VOC) analysis will be collected at each interval, however, laboratory analysis will be conducted only on the sample from the uppermost interval that demonstrates below WAC concentrations for both total uranium and technetium-99.

Note 6: The first six inches of material (0'-0.5' interval) have already been removed and shipped to Envirocare for boring locations A6WP3-2, A6WP3-4, A6WP3-7, and A6WP3-8 as indicated on Figure 2-1. For documentation purposes, sampling will be considered to begin at the first (uppermost) six-inch core interval which is in place and will be referred to as the 0'-0.5' interval. Subsequent sampling and analysis will follow as indicated in Appendix D and Figure 2-3.